As for the actual effects of violence ratings and advisories, that is, whether they serve their function to "protect" people from exposure to objectionable content or serve as a "magnet" for more viewers, previous research findings are decidedly mixed. A study published by Herman and Leyens (1977) reported data on Belgian television viewership between 1972 and 1975. This study looked at movies only, and compared the audience size for movies broadcast with violence advisories to those broadcast with sex advisories and without advisories. Their main finding was that films that carried violence or sex advisories had larger audiences than those that did not. Although these data might seem to support the notion that advisories attract viewers, this conclusion cannot be drawn with confidence, because the study undoubtedly confounded advisories with content. It could very well be that the programs were watched more because they contained violence and sex, not because they were broadcast with an advisory. The study thus does not permit the effect of content to be isolated from the effect of advisories.

A publication by Austin (1980) reported on a laboratory experiment in which high school students were presented with a series of four fictitious film titles and plot synopses. For different students, the same film was associated with different Motion Picture Association of America (MPAA) ratings (G, PG, R, or X). For each film description, students were asked to fill out a rating scale indicating the likelihood that they would attend the film. According to Austin's report of the findings, the ratings had no significant impact on students' desire to see the films. There are two major problems with this study, however, that render this interpretation less than conclusive. First, Austin reported only an overall data analysis that did not permit the determination of whether the ratings produced different effects for different types of plots. Second, and more importantly, it is likely that the researcher encountered a credibility problem with the participants. It seems questionable whether the same plot description could plausibly be associated with both a "G" and an "X" rating, for example. Although Austin claimed that credibility was not a problem, he did not report any of his plot synopses in his write-up.

A third study of the effect of advisories, an experiment by Christenson (1992), yielded yet a different effect. Although not a study of television, but rather of music preferences, it is relevant here because it examined the effect of parental advisory labels for popular music albums ("Parental advisory: Explicit lyrics"). In this study, adolescents gave lower evaluations of music from albums displaying advisory labels than of the same music from albums without such labels, and they reported less interest in purchasing the labeled albums.

The conflicting findings of these three studies leave us knowing very little about the impact of violence ratings and advisories on adult and child viewers' attraction to or avoidance of television programming. A recent unpublished study reported by Hamilton (1994) presents the first real contribution to general knowledge on this question. This study looked at the Nielsen ratings for prime-time movies broadcast on network television between 1987 and 1993 and used regression analysis to determine the factors that made significant contributions to the movies' ultimate audience size. In his analysis, Hamilton included a variety of characteristics that are known to have an impact on the rating a program receives, such as its scheduling, the rating of the show preceding it, and the manner in which it was described and categorized in *TV*

*Guide*. Hamilton's major finding was that the presence of a viewer discretion advisory was associated with a significant reduction in Nielsen ratings among viewers in the 2- to 11-year-old category. These advisories had no significant impact on the size of the teen or adult audience, however. This study represents the first successful demonstration that viewer discretion advisories can serve one of their major intended purposes, that is, to shield some of the youngest and most impressionable children from exposure to controversial content, without either increasing or reducing the size of the audience in other age groups.

A study such as Hamilton's, involving aggregate data, can tell us only about the quantitative end result of a process by which children are exposed to or protected from exposure to movies on TV. What we can't tell from such a study is how the reduction in child audience size was brought about. Did parents make decisions about their child's exposure by themselves, or were children involved in the decision to avoid these movies? It is possible that parents and children made their decisions in concert, but it is also very possible that parents made these decisions unilaterally. Some of the questions that remain unaddressed, therefore, are whether or not children knew about the advisories at all; whether, if they did, they understood what they meant; and further, whether the advisories had any effect on the children's desire to see the movies.

The research conducted at the Madison site was designed to investigate ratings and advisories in a variety of ways. The main experimental study (Part I) investigated the degree to which children understand the meaning of advisories and ratings associated with violent content, the effect of such advisories and ratings on children's desire to see programs associated with them, and whether the presence of advisories and ratings influences children's interpretations of the violence they see. Two smaller-scale studies were also included. The first (Part II) investigated how the presence of advisories and ratings for violent content influences negotiations between parents and children over what the child should watch on television, and the second (Part III) investigated the degree to which different MPAA ratings affect college students' interest in movies shown on television. Part IV of this report contains an analysis of the use of advisories and ratings in the random sample of television programming that was drawn for the content analysis of violence on television.

## PART I: CHILDREN'S RESPONSES TO RATINGS AND ADVISORIES

Although it is commonly agreed that ratings and advisories are directed at adults to permit them to protect their children or themselves from objectionable content, it is difficult to ignore the question of how these messages affect children. Children's viewing decisions are often made in the absence of the parent, and anecdotal evidence suggests that children are aware of advisories and ratings. It is therefore important to determine the impact of ratings and advisories on children themselves.

For the first year of the project period, we tested those ratings and advisories that seemed most prevalent on television. Based on information supplied by the NCTA from many of the cable channels, we decided to test the following four advisories: "Parental discretion advised," "Contains some violent content; Parental

discretion advised," "Viewer discretion advised," and "Contains some violent content; Viewer discretion advised." We also decided to include the four major MPAA ratings that are associated with movies shown on television: "G: General audiences," "PG: Parental guidance suggested," "PG-13: Parents strongly cautioned," and "R: Restricted." We tested the effect of these ratings and advisories on children's desire to see programs and movies. In addition, we assessed the effect of the four MPAA ratings on children's interpretation of a violent movie scene. Finally, we tested children's understanding of these eight advisories and ratings. In addition, we tested their understanding of four new content codes recently introduced on several premium channels, that are used in conjunction with the MPAA ratings for movies. They are "MV: Mild violence," "V: Violence," "G: Graphic violence," and "AC: Adult Content." The analyses compared the responses of boys and girls in two age groups, 5 to 9 years and 10 to 14 years.

## Method

### Participants

The sample of participants consisted of 297 children from the Madison Metropolitan School District, Madison, Wisconsin. Permission was secured from the schools and the participants' parents prior to the study. Elementary school children (grades one through five) were tested during school hours as well as during an after-school day care program located at various elementary schools. Middle school children (grades six through eight) were tested during school hours. A total of three schools and ten after-school day care sites participated in the study. An incentive was paid to the participating schools and day care programs for their cooperation.

A variety of schools were included in the sample in order to cover an adequate range of socioeconomic status (lower to upper-middle class). Participants ranged in age from 5 to 14 years. Many of the analyses compared subjects in two age groups. The "younger" group was composed of children between the ages of five and nine years (N=159; 55% male). The "older" group was composed of children between 10 and 14 (N=138; 42% male). The overwhelming majority of the children participating in the study were Caucasian.

### Procedure

Each research session began with the administration of a 15-minute questionnaire, followed by a 15-minute film clip, followed by another 15-minute questionnaire. Children in first and second grades were interviewed individually by groups of trained interviewers. The older children were tested in groups of four to eight by two research assistants, with the exception of one middle school, whose students were tested simultaneously by two research assistants as one large group in a lecture hall. In all cases, children were told not to put their name on any of the booklets, and were assured that their answers would be completely anonymous.

The first questionnaire booklet consisted of two parts: a background questionnaire, including a personality inventory followed by several media use questions, and a selective exposure questionnaire in the form of a five-page mock

television programming schedule. Children were instructed to choose the program they would like to view from three different program descriptions presented on each page of the programming schedule. The last page of the schedule featured three movie descriptions. Children were told that they would be shown a video clip after completing the questionnaire, and that their viewing choices would count as "votes" to help the researchers decide which video clip to show. When the children had all finished filling out the first questionnaire, the researchers tallied their "votes." All groups were shown the same video clip, regardless of their programming choices.

Children were told to gather around one or two (depending on the size of the group) large (27") video monitors to watch a video clip from the program that "won the most votes." Care was taken prior to the video presentation to make sure each child could see at least one of the screens clearly. In the single case where a large group of middle-school children viewed the tape simultaneously, the video image was projected onto a 10-foot-square screen to facilitate viewing.

Immediately after viewing the video clip, the children filled out a second booklet containing two parts: a questionnaire about their reactions to the movie clip, and a test of their understanding of various ratings and advisories commonly used in network and cable television programming. After completing this questionnaire, the children were thanked, given a small gift (a sticker or a pencil), and dismissed.

## Materials

**Background questions**. The personality inventory consisted of self-report measures adapted from a variety of sources, including the Junior Eysenck Personality Inventory (JEPI, 1965) and Mehrabian and Epstein's measure of emotional empathy (Mehrabian & Epstein, 1972). The personality dimensions of greatest interest were aggressiveness and anxiety. Examples of the items in these dimensions are "I get into fights with other children" (aggression), and "I find it hard to sleep at night because I worry about things" (anxiety). Possible responses were "never," "some of the time," "most of the time," and "all of the time."

The media exposure questions following the personality inventory asked for the children's assessment of whether their parents ever watched TV with them or discussed it with them, and whether their parents set limits on their TV viewing.

**Selective exposure questionnaire**. The second segment of the first booklet consisted of a TV program listing grid similar to those featured in such publications as *TV Guide* and daily newspapers. The first page of listings described three reality-based crime shows with fictional names: *Countdown*, *On Camera*, and *L.A.P.D.*, each associated with a short description of the plot of an episode (e.g., "A gun dealer who is selling illegal firearms is taken into custody after a shoot-out.") Fictitious names that sounded like real programs were used because in initial testing, young children automatically chose programs whose names they recognized, such as Rescue 911, and would not even listen to the program descriptions before making their choices. Children were told that all the programs were real, but that some were not currently being broadcast locally. (A measure of the program titles' credibility can be seen in the fact that an average of 17% of the children in the sample stated that they

had seen these programs before). On the first page, one of the programs and its description was followed by an advisory that read "Parental discretion advised" (parental advisory) or "Contains some violent content; parental discretion advised" (parental violence advisory). The program that contained an advisory was randomly varied, as were the advisory version (with or without the mention of violent content) and the order of the show descriptions.

After reading the descriptions (or, in the case of first and second graders, listening to an interviewer read the descriptions), the children marked their viewing choice and indicated whether they had ever seen any of the shows described. The procedure for completing pages 2 through 5 was identical to that of the first page. The second page of listings described three situation comedies with real names and plausible episode descriptions: *Full House, The Nanny*, and *Home Improvement*. This page was presented as filler material, and contained no advisories.

The third page of listings described three crime dramas with fictional names: *RIVALS, Keep the Peace*, and *Chicago Underground*. (An average of 12% of the participants said that they had seen these programs before.) These program titles were also followed by episode descriptions (e.g., "An assassin pursues the daughter of an African ambassador.") One of these descriptions was always followed by an advisory that read "Viewer discretion advised" (viewer advisory) or "Contains some violent content; viewer discretion advised" (viewer violence advisory). Again, the show description containing the advisory was randomly varied, as was the advisory version and the order of presentation of the show descriptions. The fourth page of listings described three more situation comedies with real names and plausible episode descriptions: *Mad About You, Saved by the Bell*, and *Martin*. This page was also presented as filler material, and contained no advisories.

The fifth page of listings described three feature-length movies whose names and plot descriptions contained both real and fictional elements. The titles were *Hidden Island, Cold River*, and *The Moon-Spinners*. The descriptions for *Hidden Island* and *Cold River* were always followed by the MPAA rating "PG: Parental guidance suggested." The MPAA rating for *The Moon-Spinners* was randomly varied to read one of four ways: "G: General audiences," "PG: Parental guidance suggested," "PG-13: Parents strongly cautioned," or "R: Restricted." As on the first and third pages, the order of presentation of the movie descriptions was randomly varied.

**Video clip**. All groups of children saw the same video clip: a 15-minute edited version of the 1964 Disney movie *The Moon-Spinners*. It should be noted that, depending on the questionnaire version they received, children were led to believe that the movie they were about to see was rated "G," "PG," "PG-13," or "R." The movie's rating was actually "G."

The video clip depicted the story of an adolescent girl (played by Hayley Mills), who helps a young man who had earlier been framed for a jewel theft. Together, they catch the criminal who really stole the jewels and safely return them to their owner. The 15-minute clip was edited to contain enough of the entire plot to make sense as a story. It contained two fight scenes between the young man (the "hero") and the older male criminal (the "villain"). The fight scenes depicted fist-fighting between the hero

and villain, with the villain also using a fishing harpoon and a motor boat as weapons. The second fight scene ended with the story's resolution, in which the villain is arrested and the hero is vindicated.

**Questionnaire on reactions to violent video**. The first segment of the movie-rating questionnaire began with items measuring participants' liking for the video clip, how exciting they thought the scenes were, how much they would like to see the whole movie, and how violent they thought the scenes were. Responses ranged from 0 ("not at all") to 4 ("very, very much"). Participants were also asked to think back to the two fight scenes and to estimate, for each scene separately, how hard the hero and villain were hitting each other, how hurt they each were, and how right or wrong it was for them to be hitting each other. The hero and villain were referred to by name and appearance (e.g., "Mark, the young man in the white shirt") and not designated in the questionnaire as "hero" or "villain." In addition, participants' feelings during the viewing session were assessed with a battery of items measuring how happy, sad, angry, excited, scared, and surprised they were while viewing the fight scenes. Finally, a question measuring memory for the rating of the video clip (as described in the selective exposure questionnaire) was included as a manipulation check.

**Questionnaire assessing interpretation of ratings and advisories**. The final segment of the experiment was designed to measure children's understanding of three types of advisories and ratings commonly associated with commercial media fare. Each child was shown one of each of the three types of advisories. The particular form of each type of advisory a child received was determined at random. The first advisory was one of four written warnings: "Parental discretion advised," "Viewer discretion advised," "Contains some violent content; parental discretion advised," or "Contains some violent content; viewer discretion advised." The second message to be interpreted was one of four MPAA movie ratings: "G: General audiences," "PG: Parental guidance suggested," "PG-13: Parents strongly cautioned," or "R: Restricted." The third message was one of four content codes recently introduced on some premium channels: "MV: Mild violence," "V: Violence," "GV: Graphic violence," or "AC: Adult content."

The advisories were presented as illustrations of how they are commonly displayed--in white letters on a black television screen. After reading each advisory, the children were asked open-ended questions about the meaning of the advisory and what they would expect a program or movie associated with it to contain. Children then answered a question regarding whether the advisory would make them want to watch a program more or less, and how much so. After giving their responses on the three advisories, one to a page, they were presented with the same three advisories a second time, this time followed by questions with multiple-choice responses. First, they were asked to choose the phrase that came closest to the meaning of the message. Second, they were given a list of 13 types of content, and were asked to circle all those things that they would expect to see in a program that was preceded by that advisory or rating. The types of content were: punching, fighting, kissing, explosions, drinking alcohol, sex, swearing, shooting, kicking, smoking, monsters, drugs, and people dying.

In both questionnaire booklets, all of the pages that involved random assignment of advisories, ratings, and orders were independently randomized so that there would be no systematic effects of questionnaire structure. For example, there were 18 different versions of page 1 of the selective exposure booklet (2 advisory types X which of 3 programs was associated with an advisory X 3 orders of presentation). A series of random orders of 18 numbers was generated by computer and the versions of that page were stacked in these orders. A separate randomization was carried out for each page that included random assignment to conditions, and booklets were collated from these randomly ordered stacks of page versions. As a result, random assignment to conditions was independent for each manipulated variable. In other words, a participant's assignment to a parental advisory condition was entirely independent of his or her assignment to a viewer advisory condition and to an MPAA rating condition in the selective exposure portion. Moreover, it was also independent of his or her assignment to a condition in the latter portion of the experiment, testing comprehension of advisories and ratings.

## Results

### Selective Exposure

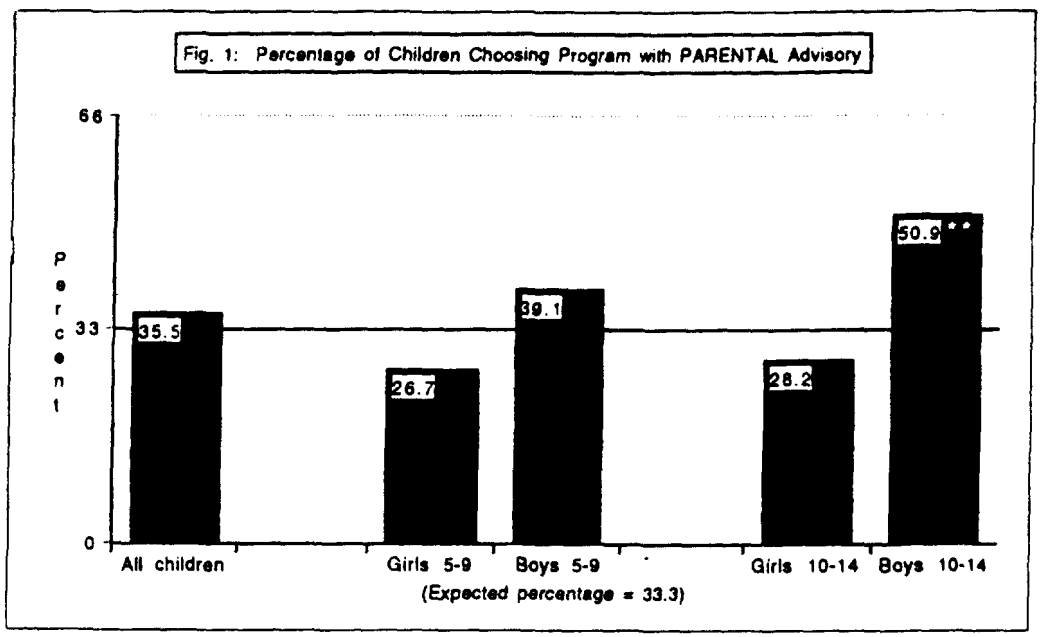
The first set of analyses we conducted dealt with whether children's choices of programs and movies to view during the experiment were affected by the presence of advisories or MPAA ratings.

**Parental discretion advisories**. The first page of the TV program listings included three fictitious programs that sounded like "reality-action" programs. To determine whether the presence of the advisories "Parental discretion advised" or "Contains some violent content; Parental discretion advised" influenced children's choices of these programs, binomial tests were employed, assessing whether the observed pattern of choices differed significantly from chance, that is, from what would be expected if there were no effect of advisories. Since there were three possible program choices, and the advisories were associated with each title at random, a chance outcome would occur if one-third of the children chose a program with an advisory. Thus, the percentage of children choosing the program with an advisory was compared to the chance expectation of 33.3%. A number higher than 33.3% would indicate that more kids chose the program with an advisory; a lower percent would indicate that fewer children chose it. The standard probability level of .05 was set to determine whether the percent choosing the program differed significantly from chance.

The first analyses included both versions of the parental advisory (combining the version with and without the mention of violence). Overall, 104 children chose programs with the advisory, while 189 did not. This represents an observed value of 36%. Although slightly higher than the 1/3 comparison figure, this value did not even approach significance ($p$=.47, two-tailed).

Further analyses were performed to determine how the patterns of interest in programs with parental advisories compared in the four age-by-sex groupings, that is, younger girls, younger boys, older girls, and older boys. These patterns are displayed

in Figure 1. The data revealed that younger and older girls were highly similar, with 27% and 28%, respectively, choosing a program with a parental advisory. In contrast, boys showed more interest in programs with parental advisories. Although more than one-third of both younger and older boys chose such shows, the preference of older boys was much stronger. Thirty-nine percent of the younger boys, but 51% of the older boys, chose a program with a parental advisory. The binomial tests revealed the percent for the older boys to be significantly different from chance ($p<.01$). The percent in the other three groups did not differ from chance expectations (all $p$'s$>.29$).




NOTE: ** $p < .01$

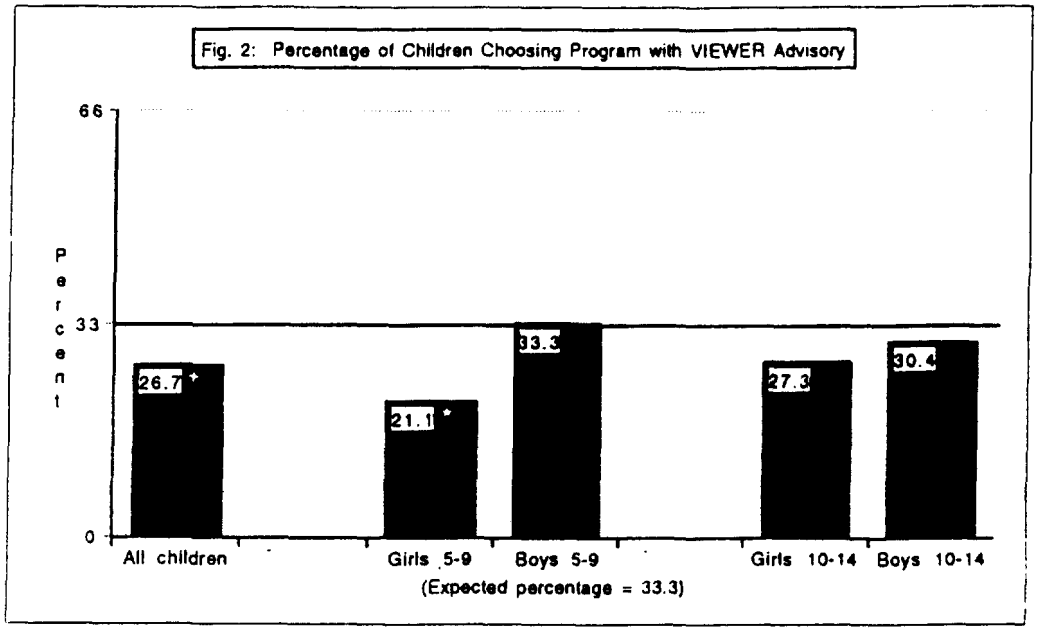
When the data were analyzed by gender of participant, collapsing age, it was found that the percentages of boys choosing a program with a parental advisory significantly exceeded that of girls (44% vs. 28%, $X^2(2, N=293)=7.73$, $p<.01$, phi=.17). Furthermore, the percentage for boys was significantly higher than chance levels ($p=.01$). When the percentages were analyzed by age, collapsing gender, there was no significant difference between the age groups ($p=.53$).

The two versions of the parental advisory (mentioning violence vs. not mentioning violence) were also analyzed separately. These analyses showed that the two types of parental advisories exerted highly similar effects, with 35% of subjects choosing a program with the parental advisory and 36% choosing a program when it had the parental violence advisory ($p=.86$). The only real difference between the effects of the two forms of the parental advisory was that the difference between boys and girls was larger for the parental violence advisory (47% vs. 25%) than for the parental advisory that did not mention violence (40% vs. 30%). The former comparison was significant ($X^2(2, N=143)=6.47$, $p<.01$).

In summary, boys, and especially older boys, showed significantly more interest in reality-action programs with parental discretion advisories than would be expected by chance, and boys showed significantly more interest than girls in these programs.

**Viewer discretion advisories**. Next, the "viewer discretion advised" warnings from the third page of the TV booklet were analyzed in the same fashion. The programs on this page were made to sound like crime dramas. As can be seen from Figure 2, overall, 27% of the children chose a drama associated with one of the two forms of viewer discretion advisories, and this percent was lower than chance levels, approaching significance ($p=.07$).

The data within the four age-by-sex groupings are also shown in Figure 2. As the figure shows, younger girls chose programs with a viewer discretion advisory at the lowest rate (21%) and this rate was significantly different from chance ($p<.05$). The percentages in the other three conditions did not differ from chance expectations ($p>.3$).




NOTE: * $p < .05$ + $p < .07$

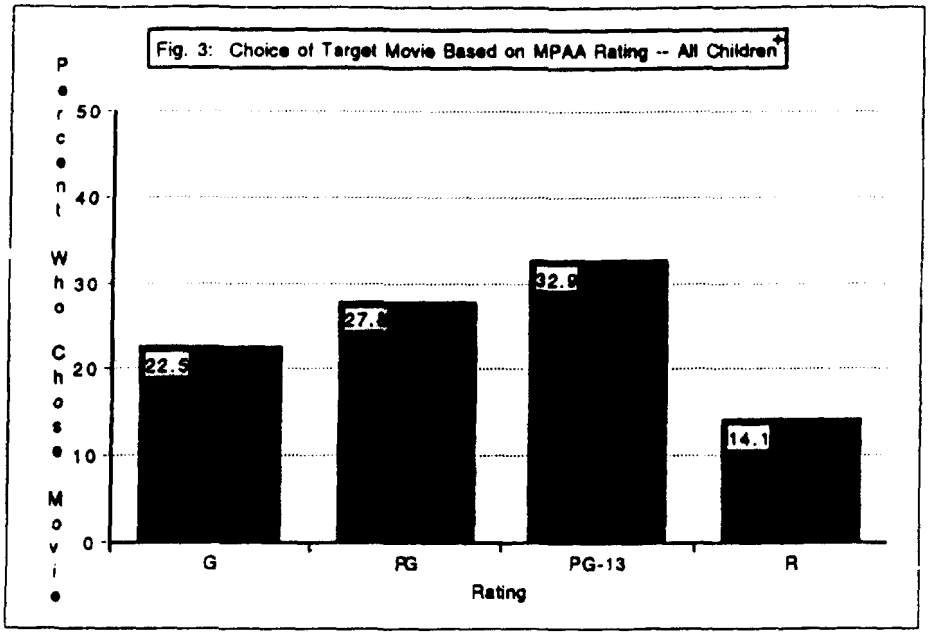
When the patterns for both genders were looked at, collapsing age, the proportion of girls choosing a program with a viewer advisory (24%) was significantly lower than chance expectations ($p<.05$). However, the pattern for girls did not differ significantly from that for boys. The choices of the younger and older groups (combining sexes) did not differ from chance, nor did the two age groups differ significantly from each other.

When the two forms of the viewer advisory were compared, there was a tendency to choose the one mentioning violence more often (30% vs. 27%), but this difference did not even approach significance ($p=.67$).

Overall, then, there was a tendency to avoid crime dramas with viewer discretion advisories, approaching significance, and this effect was predominantly due to a significant tendency for girls, and especially younger girls, to avoid dramas with viewer discretion advisories.

**MPAA ratings**. Children's movie choices as a function of MPAA ratings were analyzed by chi square. It will be recalled that only one movie, *The Moon-Spinners*, was associated with a manipulated rating, and the rating was varied in four ways (G, PG, PG-13, R). The other two movies were always rated "PG."

The first analysis compared the percentage of all children who chose the target movie *(The Moon-Spinners)* when it was given the different ratings. As can be seen from Figure 3, *The Moon-Spinners* was chosen by 22%, 28%, 33%, and 14% of children when it was rated "G," "PG," "PG-13," and "R," respectively. The chi square computed to determine whether this pattern was different from chance expectations (i.e., that the movie was equally attractive with the different ratings) was of borderline significance ($X^2(3, N=291)=7.45$, $p=.059$, Cramer's V=.16).

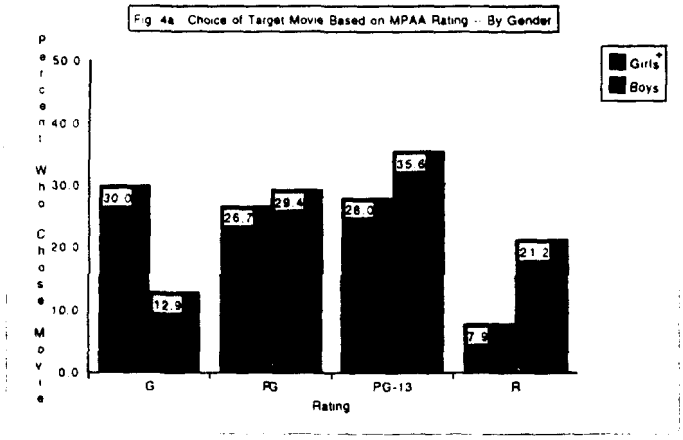



NOTE: + $p < .06$

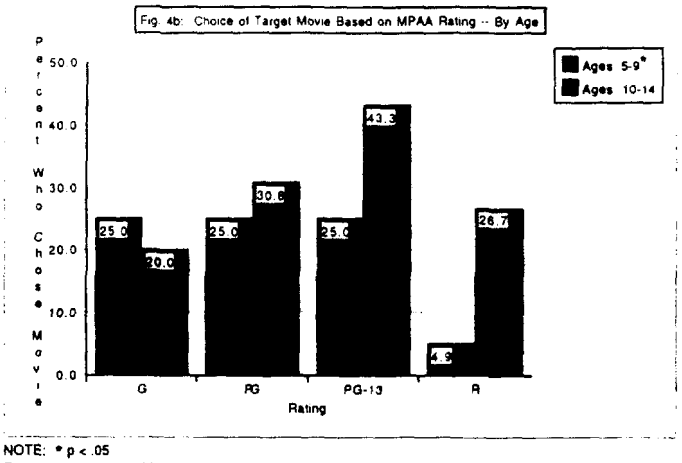
Figures 4a and 4b report the movie choice data broken down by gender and by age, respectively. Figure 4a shows that for girls, choice of the target movie was approximately equal when the movie was rated "G," "PG," or "PG-13," but it was much lower when the movie was rated "R." This pattern differed from what would be expected by chance, approaching significance ($X^2(3, N=148)=6.70$, $p=.08$, Cramer's V=.21). In contrast, for boys, the "G" rating made the target movie the least popular, and interest in the movie peaked at the "PG-13" rating. This pattern was not significantly different from chance. However, when the patterns for boys and girls were compared to each other in a chi square based on proportions, the choice patterns for the two sexes were significantly different ($X^2(3)=15.22$, $p<.01$).

Figure 4b reports the data on the impact of MPAA ratings on selective exposure, broken down by age. As the figure shows, the pattern for the younger group is remarkably similar to the pattern for girls; and the pattern for the older group is very similar to the pattern for boys. For the younger group, exactly 25% chose the target

movie when it was rated "G," "PG," and "PG-13," but fewer than 5% selected it when it was rated "R." The chi square on these frequencies was significant ($X^2(3, N=157)=7.74$, $p=.05$, Cramer's V=.22). For the older group, as with the boys, interest in the target movie again was lowest when it was rated "G" and peaked at "PG-13." This pattern did not differ significantly from chance ($X^2(3)=4.39$, N=134, $p=.22$). However, when the proportions for the two age groups were compared in a chi square, the pattern for younger and older groups did differ significantly ($X^2$ (3)= 13.39, $p<.01$).

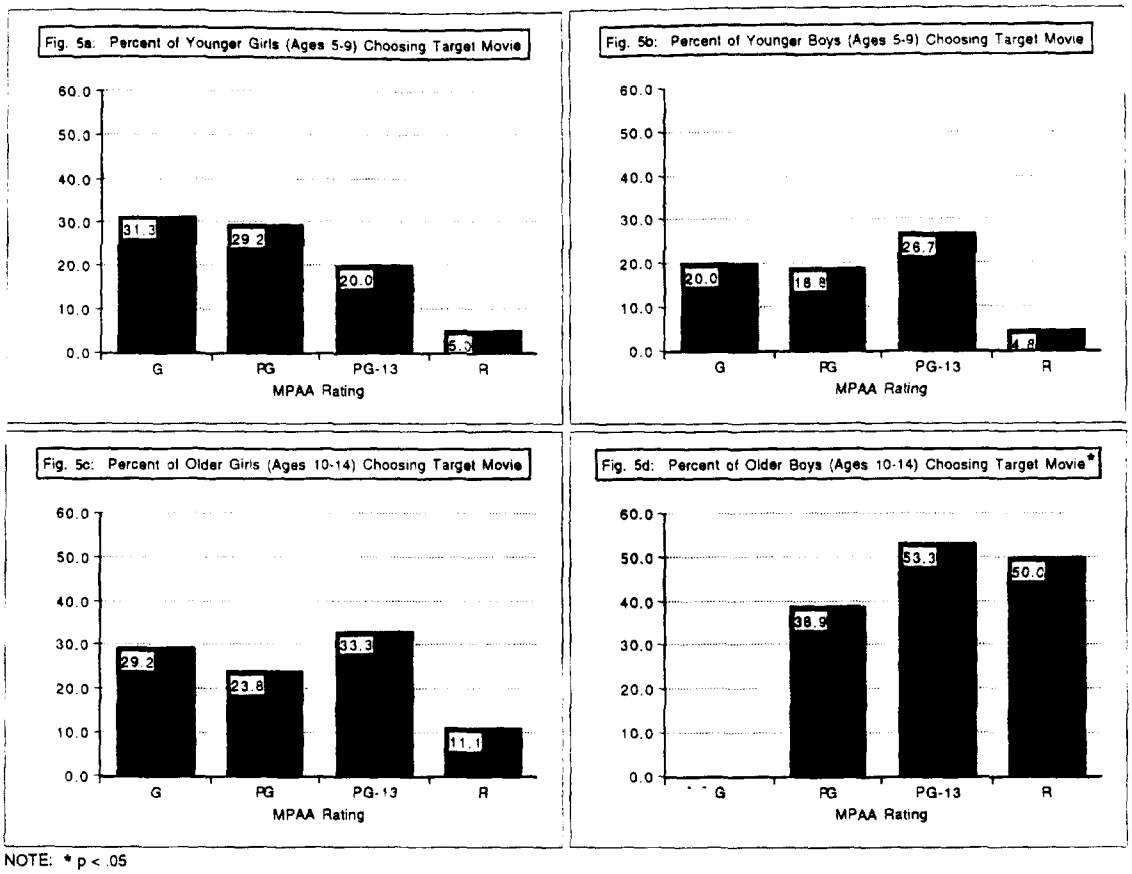



NOTE: * $p < .08$
*For girls versus boys, $p < .01$.*




NOTE: * $p < .05$
For younger versus older groups, $p < .01$.

The similarity of the patterns for younger children and girls is not due to a confounding of gender with age. In fact, the younger group had a higher percentage of males than the older group (55% vs. 42%). Figures 5a through 5d show the patterns of choice within the four age-by-gender groupings. Perhaps because of the smaller sample sizes, the patterns in three of the four groups did not reach statistical significance, but these patterns show similarities to the analyses by age group and by gender. The only pattern that is significantly different from chance is that of the older boys ($X^2$ (3,N=56)=9.02, $p<.05$, Cramer's V=.40). It seems particularly remarkable that in this group, none of the boys who were told the movie was rated "G" chose it, but 53% of those who were told it was rated "PG-13," and 50% of those who were told it was rated "R" wanted to see it.




NOTE: * $p < .05$

Overall, these data show that the rating the movie received influenced the degree to which children expressed a desire to see it. Although younger children and girls showed a tendency to shy away from the movie when it had the restrictive rating "R," older boys were attracted to the more restrictive ratings and avoided the "G" rating.

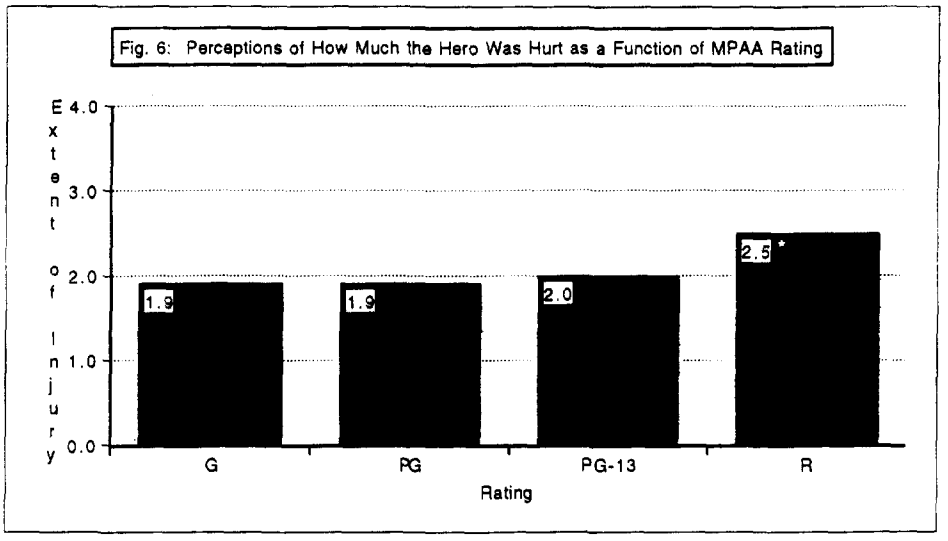
## Interpretation of Violent Content

Responses to the questions assessing reactions to the video clip from *The Moon-Spinners*, and specifically to its violent content, were analyzed in factorial analyses of variance with age (younger, older), sex, and the MPAA rating associated with the video (G, PG, PG-13, R) as independent factors. Over all the analyses, there were many differences attributable to age and sex. For the most part, the movie and its violence were appreciated by younger more than by older participants and by boys more than by girls. However, since gender and age differences *per se* were not a focus of this research, significant main effects of these factors are not reported here.

The results revealed that the movie's MPAA rating had very little effect on children's interpretations of the movie scenes. With only one exception, there were no significant effects or interactions involving the MPAA rating factor on any of the

questions about children's evaluations of the movie, their interpretations of the violence, or the emotions they felt while viewing.

The one significant effect of the movie ratings was in response to the question about how hurt the hero was by the end of the first violent scene. This analysis revealed a significant main effect of the movie's rating ($F(3,267)=4.38$, $p<.01$). Figure 6 shows the pattern of means over the four conditions. As can be seen from the figure, children who had been told that the movie they were seeing had been rated "R" thought that the hero was significantly more hurt during his violent encounter with the villain than children in the other three conditions. This finding is of interest because it suggests that ratings may have the potential to focus attention on the negative consequences of violence. However, in light of the fact that only one significant effect was observed over the four-page questionnaire, such an effect needs to be replicated in future studies before we place much confidence in it. The manipulated rating did not affect children's enjoyment of the movie, the degree to which they thought it was, overall, violent, their moral evaluations of the violence, or the emotions they reported while viewing it.




NOTE: * Significantly different from all other groups at $p < .05$.

One possible reason for the minimal effect of the ratings on responses to the movie may be that although we have reported strong evidence that the ratings influenced movie choice, children may not have been sufficiently conscious of the movie's rating to remember it during the viewing portion. Since children in the groups worked at different rates of speed, there was some delay for many children between choosing which movie they wanted to see and watching the video clip. And because the groups of viewers were composed of children who were told the movie was rated differently, it was not feasible to remind children of the rating as we showed the clip to them.

By the time children had seen the movie and filled out the questionnaire on their responses to it, they indeed revealed poor memory for the rating the movie had been assigned in the selective exposure questionnaire, which they had filled out approximately 20 minutes earlier. Overall, only 30% of the children accurately reported the movie's rating at the end of the movie-evaluation questionnaire. Twenty-six percent responded that they did not know what the rating was. One aspect of the procedure that must have contributed to the low accuracy is the fact that the two non-target movies were always given a "PG" rating. It is no wonder then, that 40% of the subjects remembered the target movie as being rated "PG" (vs. 10%, 15% and 10% respectively for "G," "PG-13," and "R"). To determine whether the lack of significant rating effects on evaluations of the movie might be due to poor memory of the rating, one-way analyses of variance on children's responses to the movie were run using only those 82 participants who accurately remembered the rating. These findings did not differ in any substantial way from the findings reported on the entire sample.

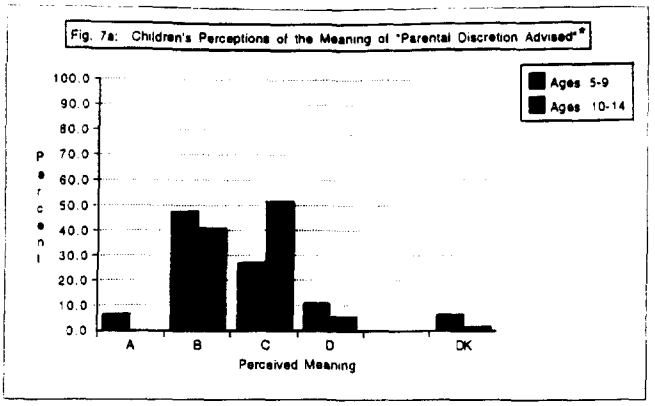
## Interpretations of Advisories and Ratings

**Comprehension**. Children's forced-choice answers regarding the meanings of the various advisories and ratings are shown in Figures 7 through 9.

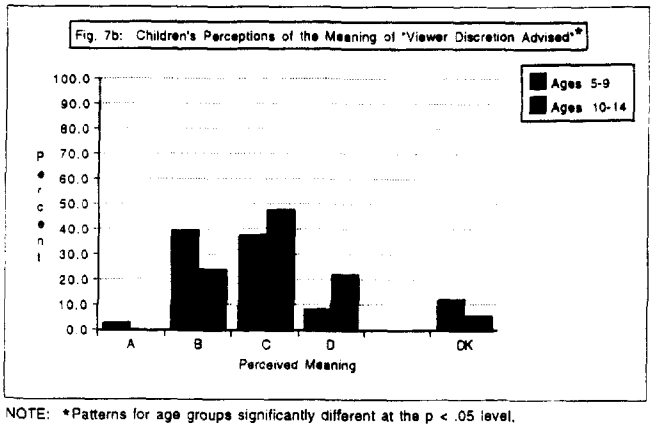
In responding to the question about the parental and viewer advisories, subjects could choose from the following responses: A) "people shouldn't watch it" B) "kids need a grownup's permission to watch it," C) "parents should be careful in deciding whether to let their kids watch it," D) "people should be careful in deciding whether to watch it," and E) "don't know." Since the two versions of each advisory (with and without the mention of violence) had essentially the same literal meaning as far as the advisory was concerned, the data for the two versions were combined.

Figure 7a compares the distribution of chosen meanings for the parental discretion advisory for younger vs. older children. The literal meaning of this advisory is closest to choice C, indicating that parents should exercise care in deciding whether their children should watch the program. Although this alternative was chosen most frequently by the older children (52%), a sizable number of this group (41%) said the advisory meant that children needed a parent's permission. Almost half of the younger group chose the latter option, while 27% chose the option that was literally correct. The distributions of the two age groups differed significantly from each other ($X^2$ (4, N=129)=12.04, $p<.05$).

Figure 7b compares the two age groups in their understanding of the viewer discretion advisories. Although the literal meaning of this advisory is closest to alternative D, that people should consider whether they want to watch the program, almost half of the older children interpreted this as a parental advisory, and less than one-fourth chose the literal meaning. Again, the most frequent choice for the younger group was that children need a parent's permission. The distribution of responses in the two age groups was significantly different ($X^2$ (4, N=145)=12.12, $p<.05$).




NOTE: *Patterns for age groups significantly different at the p < .05 level.




NOTE: *Patterns for age groups significantly different at the p < .05 level.

PERCEIVED MEANING KEY:
A -- People shouldn't watch
B -- Kids need a grownup's permission to watch
C -- Parents should be careful in deciding whether to let their kids watch
D -- People should be careful in deciding whether to watch
DK -- Don't know

In responding to the question regarding the meaning of the four MPAA ratings, subjects could choose from the following: A) "anyone can watch it," B) "parents should decide whether their kids can watch it," C) "parents should be very careful about letting their kids watch it," D) "kids shouldn't watch it without a parent," E) "no kids are allowed to watch it," and F) "don't know."

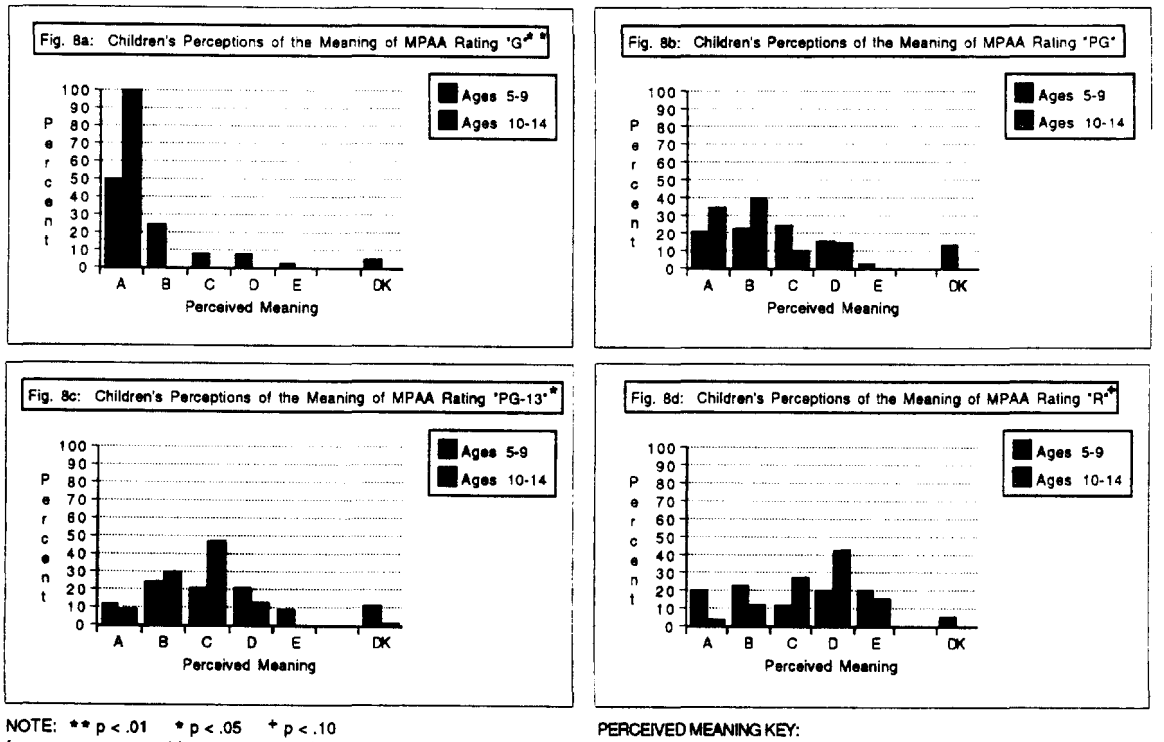
Figures 8a through 8d show the distribution of responses for younger and older children among these response categories. As can be seen from Figure 8a, all of the older children who were asked about the meaning of "G: General audiences" knew that it meant that anyone can watch the movie. Only half of the younger children gave the correct answer to this question, with another quarter of the sample saying it meant that parents should make the decision. The difference between the age groups was significant ($X^2$ (5, N=61)=17.73, $p<.01$).

Figure 8b shows the distribution of chosen meanings for "PG: Parental guidance suggested." Among the older children, the highest proportion (40%) chose the literal meaning, that parents should decide if their children should watch. However another 35% chose the option "anyone can watch." Although this is not the literal meaning of the message, it does reflect the fact that a "PG" rating does not actively restrict any child's access. Younger children's responses to this question were more spread out over the options, and 14 percent of this group said they did not know what the rating

meant. Although there are apparent differences in the patterns for the two age groups, the difference between the groups was not significant ($p<.20$).

From Figure 8c it can be seen that almost half of the older children chose the literal meaning of "PG-13: Parents strongly cautioned" that parents should be very careful in deciding whether their children should watch the movie, and most others chose the option indicating that parents should make the decision. In contrast, the responses of the younger children were much more evenly distributed across the options, indicating a very low rate of comprehension of this rating. The difference between the younger and older children was significant ($X^2$ (5, N=90)=14.55, $p<.05$).

Figure 8d shows that for older children, the most typical (42%) understanding of "R: Restricted" was the literally correct one, that children could not watch without a parent. More than one-fourth chose the literal meaning of "PG-13" as the meaning of "R," however, and 15% thought it meant that children could not see an R-rated movie at all. Younger children's responses were spread out almost equally over most of the options, which suggests that they may have been guessing. The difference between the two age groups approached significance ($X^2$ (5, N=61)=10.19, $p=.07$).




NOTE: ** $p < .01$ * $p < .05$ + $p < .10$
for younger versus older group comparisons.

PERCEIVED MEANING KEY:
A -- Anyone can watch
B -- Parents should decide whether their kids can watch
C -- Parents should be very careful about letting their kids watch
D -- Kids shouldn't watch without a parent
E -- No kids are allowed to watch
DK -- Don't know

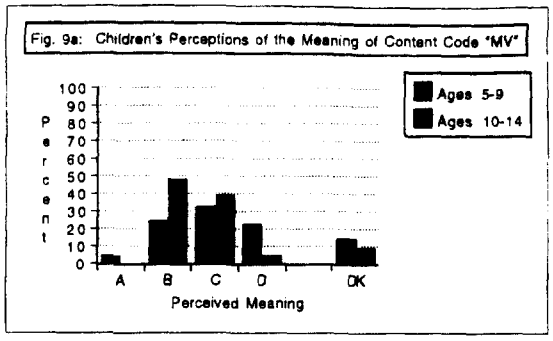
The response choices for the meaning of the premium channel content codes were as follows: A) "No fighting, shooting, or hurting," B) "A little fighting, shooting,

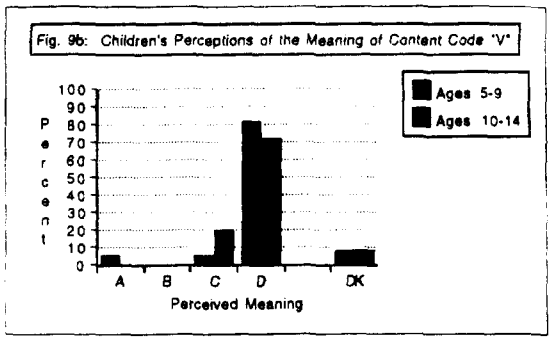
or hurting," C) "Some fighting, shooting, or hurting," D) "Lots of fighting, shooting, or hurting," and E) "Don't know." Figure 9a shows that the largest number of children in the older group thought "MV: Mild violence" meant a small amount of violence, and most of the others thought it meant "some" violence. In contrast, the responses of the younger children were spread between "a little," "some," and "lots," and one-fifth of them either did not know what it meant or said it meant there was no fighting. The difference between younger and older children was not significant, however ($p$=.13).

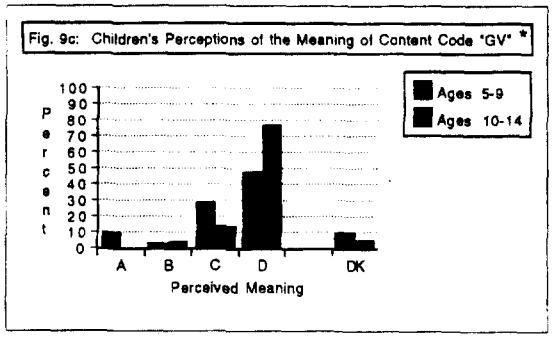
Figure 9b shows that the overwhelming majority of children in both age groups thought that "V: Violence," meant "lots of fighting, shooting, and hurting." Even more younger than older children chose this option, but the difference between the age groups was not significant ($p$=.22). Figure 9c shows that "GV: Graphic violence," was less well understood by the younger children. Although 82% of this group thought that "V: Violence" meant "lots of fighting...," only 48% thought "GV: Graphic violence," had this meaning. They apparently perceived "graphic" as a minimizing modifier rather than an intensifier. One possible explanation for this misunderstanding is that they confused the "G" in "GV" with the MPAA rating of "G." One younger child, in fact, commented confidently that "graphic violence" was violence that anyone could see. Showing greater comprehension, slightly more of the older children chose "lots of fighting..." as a meaning for GV than had chosen it for V. The difference between the younger and older groups was significant ($X^2$ (4, N=87)=10.60, $p$<.05).

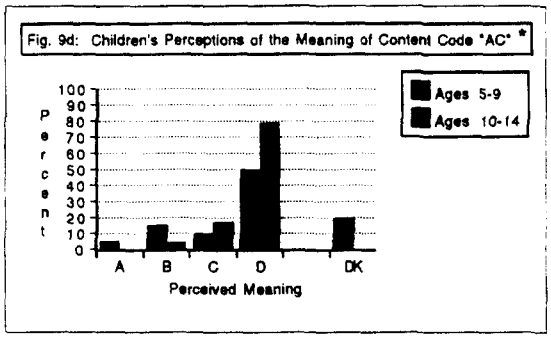
Finally, Figure 9d shows that younger and older children perceived "AC: Adult Content" differently. Although there is no "correct" response to this item since "adult" content may or may not involve violence, it is interesting to see how the age groups interpreted its meaning. The most typical response for both age groups was "lots of fighting ..." The overwhelming majority of older children chose this option, while half of the younger children did. The difference between the two groups was significant ($X^2$ (4, N=64)=10.24, $p$<.05).

**Effects on attractiveness of TV offerings**. Children's responses to the question regarding whether the advisories and ratings would make them more or less likely to want to see the program or movie were subjected to factorial analyses of variance with advisory type, sex, and age group as independent factors. The responses to this question could range from 1, "very very much less," to 9, "very very much more," with 5 indicating the neutral point.




NOTE: * $p < .05$ for younger versus older group comparisons.

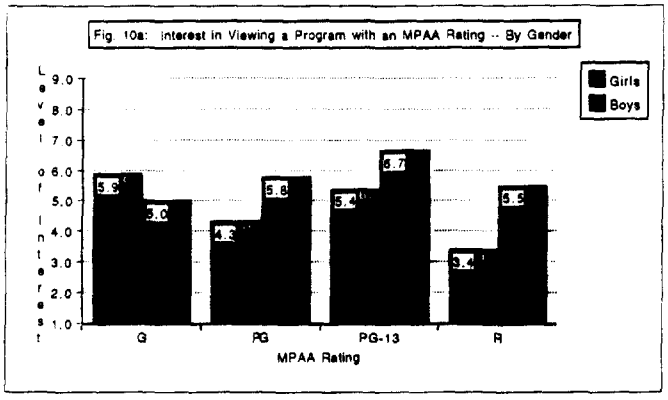
CONTENT CODE KEY:
"MV" -- Mild violence
"V" -- Violence
"GV" -- Graphic violence
"AC" -- Adult content

PERCEIVED MEANING KEY:
A -- No fighting, shooting, or hurting
B -- A little fighting, shooting or hurting
C -- Some fighting, shooting, or hurting
D -- Lots of fighting, shooting, or hurting
DK -- Don't know

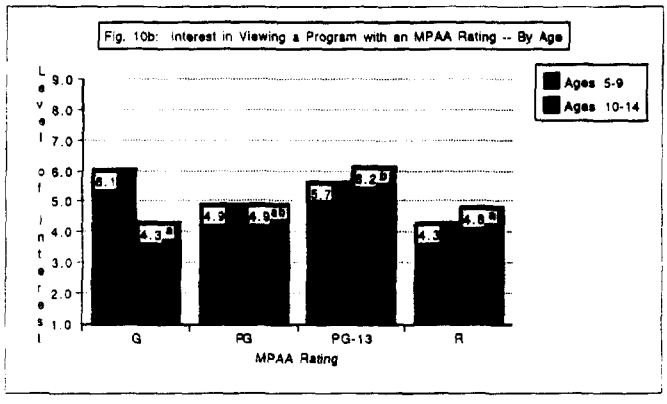
The analysis of the four parental and viewer discretion advisories revealed that there were no differences between the four advisories in their effects on children's rated interest in programs ($p>.5$). There were, however, strong effects of both sex and age. As might be expected, older children reported that these advisories would make them want to see a program "a little bit more," and younger children said they would make them want to see it "a little bit less," (5.6 vs. 4.6, $F(1,257)= 16.99$, $p<.001$). Boys also said they would make them more interested (5.8) and girls said they would make them less interested (4.4, $F(1,257)=28.04$, $p<.001$). There were no significant interactions in this analysis. The analysis came out essentially the same when the two parental advisories were combined and contrasted to the two viewer advisories, that is, there were no differences in the expected effects of the two types of advisories. This analysis indicates that children's expectations of the effect of these messages differed from the effects these messages actually had when the children chose programs to view.

The analysis of children's reported interest in movies with the various MPAA ratings yielded a significant main effect of ratings ($F(3,249)=5.33$, $p=.001$), and significant interactions between ratings and age ($F(3,249)=4.39$, $p=.01$) and between ratings and sex ($F(3,249)=5.39$, $p=.001$). Figure 10a shows the interaction between ratings and gender. Post-hoc Scheffé comparisons within gender revealed that girls expressed less interest in "R"-rated movies than in "G"- or "PG-13"-rated movies. The

differences were not significant for boys. However, Figure 10a shows that the pattern of reported interest as a function of sex and MPAA rating is highly similar to the pattern of actual choices by these groups. Figure 10b shows the interaction between MPAA Rating and age group. The Scheffé comparisons revealed that older children expressed a preference for "PG-13" over "G" and "R." Differences within the younger group were not significant. Again these patterns were very similar to the data on movie choice.




NOTE: Means without common superscripts are significantly different at the p < .05 level.
No means for boys are significantly different.



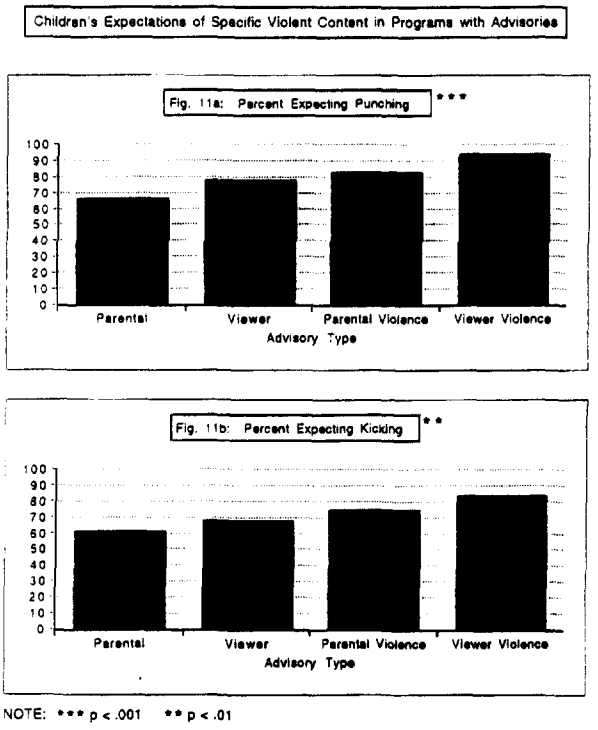

NOTE: Means without common superscripts are significantly different at the p < .05 level.
No means for children ages 5-9 are significantly different.

The analysis of the content codes revealed only main effects of sex and age. As we have seen for the other advisories, younger children expressed less interest than older children in viewing programs associated with these advisories (4.3 vs. 5.1, $F(1,252)=8.49$, $p<.01$), and girls showed less interest than boys in such programs (4.1 vs. 5.3, $F(1,252)=22.01$, $p<.001$).

**Expected content of televised offerings with advisories and ratings**. For each set of advisories and ratings, the percentage of children expecting each of the content types was computed, and the four forms of each type of advisory or rating were compared in chi square analyses.

For the parental and viewer discretion advisories, only two violent content variables were associated with significant differences as a function of which version

the child was responding to. As can be seen from Figures 11a and 11b, the percentage of children expecting punching or kicking in a program increased over the four forms of advisory, from "Parental discretion advised" to "Contains some violent content; viewer discretion advised." The chi squares computed on these data were as follows: punching, $\underline{X}^2$ (3, N=280)=20.26, $\underline{p}<.01$; kicking, $\underline{X}^2$ (3, N=280)=10.77, $\underline{p}<.01$. There was only one significant difference between the two age groups on these variables: significantly fewer younger than older children expected punching in a program preceded by the parental violence advisory.




NOTE: *** p < .001 ** p < .01

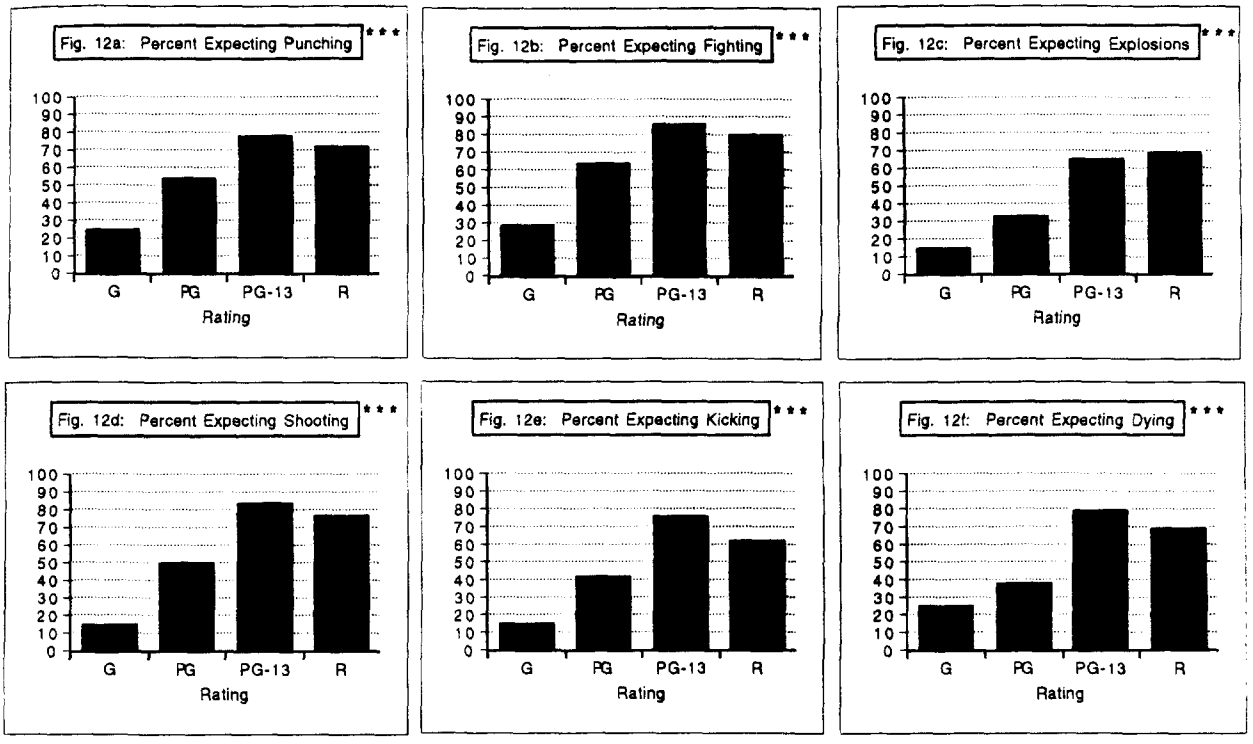
ADVISORY TYPE KEY:
Parental -- "Parental discretion advised"
Viewer -- "Viewer discretion advised"
*Parental Violence* -- "Contains some violent content; parental discretion advised"
Viewer Violence -- "Contains some violent content; viewer discretion advised"

Although it is not surprising that the phrase "contains some violent content" would increase the number of children expecting punching and kicking, it is interesting that a greater proportion of children rating the viewer advisories than the parental advisories expected these behaviors. Part of the reason for the different effects of these two types of advisories may be, then, that "viewer discretion advised" suggests more violent content than "parental discretion advised."

The analyses of the MPAA ratings revealed that these ratings exerted significant effects on expectations of content for all of the violent content variables (and for all other content variables as well). Figures 12a through 12f show the percentage of children expecting each type of violent content (punching, fighting, explosions, shooting, kicking, and people dying) as a function of the four MPAA ratings. All the

chi squares computed on these distributions were highly significant (df=3, N=280, p<.001), ranging from a high of 83.16 for shooting to a "low" of 49.05 for punching. For all these variables, the percentage expecting the violent content is lowest for the "G" rating and increases dramatically to the "PG-13" rating. The percentage levels off or declines somewhat in the group that evaluated the "R" rating. The only significant difference between younger and older groups occurred with regard to the "G" rating. More younger than older children expected to see punching, explosions, shooting, and kicking in "G"-rated movies.

Children's Expectations of Specific Violent Content in Movies with MPAA Ratings

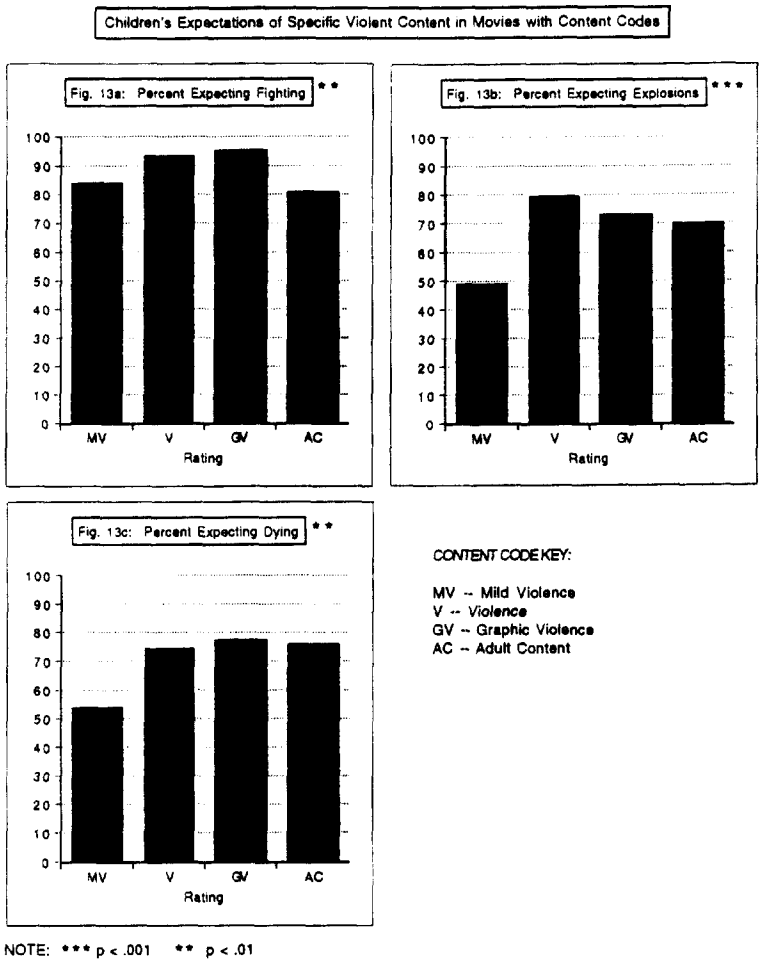



NOTE: *** p < .001

With regard to the content of movies with the different MPAA ratings, the findings with regard to expectations of sexual content are of interest. The percentage of children expecting to see sex in a movie increased from "G" through "R": (G: 10%, PG: 20%, PG-13: 52%, R: 66%). Moreover, older children were significantly more likely than younger children to expect sex in "R"-rated movies (92% vs. 46%, $X^2$ (1, N=61)=12.36, p<.001). This age difference in expectations of sex did not occur in relation to "PG-13."

Figures 13a through 13c display the violent content variables that were perceived by children to be differentially likely in programs as a function of the different content codes: fighting, explosions, and people dying. The chi squares associated with these effects ranged from 11.11 (p<.01) for fighting to 15.17 (p<.001)

for explosions (df=3, N=278). The patterns for these variables are similar, with the highest proportion of children expecting these violent contents with the "V" and "GV" advisories. The only significant difference between younger and older groups occurred with regard to "AC: Adult content." Fewer younger than older children expected to see fighting and people dying in movies so designated.




## Impact of Background Variables

**Parental involvement in child's TV exposure**. Four questions on the background questionnaire dealt with the degree to which children said their parents were involved in their television viewing, from which a scale of parental involvement was developed. There was one multiple-choice question: "my mom or dad watches TV with me" (response choices: never, some of the time, most of the time, all of the time). The latter two responses were assigned a value of 1, and the former two were given the value of zero. There were three yes-no questions: For "my parents talk to me about the TV shows I watch," a "yes" response was given a value of 1. For "my parents let me watch whatever TV shows I want," and "my parents let me watch TV for as long as I want," a "no" response was given a value of 1. Analyses of these responses demonstrated that the level of parental involvement differed over the range of behaviors. Only 36% of children indicated that their parents watched television with

them most or all of the time. Forty-six percent said their parents talk with them about the shows they watch, 58% said their parents do not let them watch anything they want, and 74% indicated that their parents do not let them watch as long as they want.

The scale combining these responses thus ranged from 0 to 4, with 0 indicating that the parents set no limits on viewing and are uninvolved, and 4 indicating the highest level of involvement. The scores over these five values tended toward a normal distribution, with 10%, 19%, 29%, 29% and 12% reporting scores of 0, 1, 2, 3, and 4, respectively.

To determine whether the degree to which parents were involved in their children's television viewing was related to the child's tendency to choose a program with an advisory, a multiple regression analysis was conducted, in which the dependent variable was whether or not the child chose a program with a "parental discretion" advisory. Age group and gender were entered into the equation on the first step, and as expected, gender was associated with choosing a program with a parental advisory, with males more likely to make such a selection (Beta=.17, $p<.01$, $\underline{R}^2= .03$). More importantly, when parental involvement was entered on the second step, it contributed significantly and negatively to the variance in choice of programs with a parental advisory (Beta=-.15, $p=.01$, $\underline{R}^2_{change}=.02$). What this means is that children who rated their parents as more involved in their TV viewing were less likely than other children to choose a program with a parental discretion advisory.

When the same type of regression analysis was conducted on the choice of programs with viewer discretion advisories, none of the variables were significantly related to choice of a program with a viewer advisory.

To perform a similar analysis on children's choices of movies with ratings indicating more "mature" content, we ran the same type of regression analysis on the data for children in the conditions in which *The Moon-Spinners* was rated "PG-13" or "R." In this analysis, age group, gender, and the measure of parental involvement were all significantly related to children's choice of *The Moon-Spinners* when it had a more restrictive rating. As expected, males (Beta =.20, $\underline{p}<.05$) and older children (Beta = .27, $\underline{p}<.001$, $\underline{R}^2=.10$) chose the movie more often. In addition, after age and gender were accounted for, children whose parents were more involved in their television viewing were less likely to choose the movie when it had these more restrictive ratings (Beta =-.17, $\underline{p}<.05$, $\underline{R}^2_{change}$ =.03).

**Child personality variables**. Two aspects of the child's responses on the personality questionnaire were explored. The first personality characteristic, which we referred to as "aggressiveness," was based on respondents' scores on the following items: "I get into fights with other kids," "I like rough and tumble games," and (reverse coded): "I am very careful not to hurt other kids when we play." Although they were intended to form a scale, the reliability of the three items together was quite low (alpha=.39). Because of the low reliability, each of the items was entered separately on the second step of regression analyses predicting the selection of a program with a parental advisory and a viewer advisory and the selection of *The Moon-Spinners* when it was rated "PG-13" or "R."

In the first analysis, when liking "rough and tumble games" was entered after the effects of age group and gender ($R^2$=.03), it was a positive predictor of the tendency to choose a program with a parental discretion advisory (Beta=.15, $p$<.05, $R^2_{change}$ =.02). Neither of the other aggression-related items made a significant contribution. In the analysis of the tendency to choose a program with a viewer discretion advisory, neither age group nor gender were significant predictors. Children's responses to the item "I get into fights with other kids," was positively related to choosing such programs, approaching significance (Beta=.12, $p$=.059, $R^2_{change}$ =.03). Thus, children who reported more often behaving aggressively tended to show more interest in programs with a viewer advisory. Neither of the other aggression-related items made a significant contribution to these choices.

In the third analysis, both gender (Beta = .19, $p$<.05) and age (Beta = .27, $p$<.001, $R^2$=.10) were significant predictors of choosing *The Moon-Spinners* when it was rated "PG-13" or "R," with boys and older children choosing it more often. None of the three aggression-related personality items were significant further contributors to this choice.

The second personality characteristic that we explored was labeled "anxiety." It involved responses to the following four items: "I have nightmares (bad dreams)," "I find it hard to get to sleep at night because I worry about things," "I get nervous when I'm in a strange place," and "seeing scary things on TV upsets me." Since the reliability of a scale based on these items was low (alpha=.58), these four items were entered separately on the second step of regression analyses predicting program and movie choice.

For the analysis predicting choice of programs with parental discretion advisories, gender was a significant predictor on the first step (Beta=.18, $p$<.01, $R^2$=.03), with boys choosing such programs more. When entered on the second step, the tendency to report being upset by scary television contributed significantly to the choice of such programs in a negative fashion (Beta=-.18, $p$<.01, $R^2_{change}$ =.03). In other words, kids who reported getting upset more often by scary television were less likely to choose a program with a parental discretion advisory.

Neither age group nor gender predicted the tendency to choose programs with viewer discretion advisories. However, having been upset by television was again a significant negative predictor (Beta=-.18, $p$<.01, $R^2_{change}$ =.04), that is, children reporting that scary television upsets them were less likely to choose a program with a viewer advisory.

In the third analysis, the only significant predictor of the choice of *The Moon-Spinners* when it was rated "PG-13" or "R," was gender (Beta=.21, $p$=.01, $R^2$=.10), with boys choosing it significantly more. None of the anxiety-related items contributed to these choices.

# PART II: EFFECTS OF ADVISORIES AND RATINGS ON PARENT-CHILD DISCUSSIONS OF TELEVISION VIEWING CHOICES

**Joanne Cantor & Marina B. Krcmar**

In the context of a larger investigation of family communication patterns and patterns of parent-child discourse, a dissertation by Marina Krcmar, we gathered some data on the effect of the presence of advisories and ratings on the television-viewing choices that parents and children make together. In this study, parent-child dyads were brought into the experimental laboratory, ostensibly to study the child's reactions to television. Parents and children were given the choice of which programs the child would watch, and as they discussed the choices available to them in a channel guide similar to the one used in the main experiment, their interactions were videotaped. Although the overall dissertation explored the relationship between family communication patterns and the participants' communication strategies in discussing what the child would view, this report will provide data on the effects of advisories and ratings on the viewing choices of different subgroups of the sample, the way parents and children referred to ratings and advisories in discussing these choices, and the degree to which such joint decisions were complied with in the absence of the parent.

It must be acknowledged here that there are major differences between this experiment and the one conducted on children alone. Most important is the fact that in the children's study, children made their choices in complete anonymity. In the parent-child study, the participants not only could not be treated anonymously; they knew that their conversations were being videotaped. Therefore, a very high rate of avoidance of the programs with restrictive advisories was expected in the parent-child study. This rate should not be considered readily generalizable to normal home-viewing, and should not be directly compared to the rate observed in the main experiment. Moreover, the samples for the two studies were drawn from different types of schools. Rather than comparing the findings of this study to the larger one, we are making comparisons between different groups within this study.

Four questions were of particular interest regarding the issues involved in the overall research on ratings and advisories. The first was whether the rate of avoidance of programs with restrictive advisories would be higher in dyads involving younger children than in dyads involving older children. Parents were expected to be more protective of younger than older children. The second was whether the rate of avoidance would be greater for dyads involving female than male children. Based on the results of the main experiment, it might be expected that boys would be more interested in restricted programs, which might result in a higher choice rate for restricted programs in dyads involving boys than in those involving girls.

The third question was whether the discussions of programs with advisories and restrictive ratings would reveal differences in the attitudes of children and parents toward the programs associated with them. For example, would the advisories provoke